



012679-105.ST25

SEQUENCE LISTING

<110> Lee, Jong Seob
Kim, Yun Hee
Choi, Eun kyung
Yoo, So Yeon
Ahn, Ji Hoon
Choi, Yang Do

<120> Gene Controlling Flowering Time of Plants and Method for
Manipulating Flowering Time of Plant Using the Same

<130> 012679-105

<140> US 10/780,703

<141> 2004-02-19

<150> KR 10-2003-10772

<151> 2003-02-20

<160> 9

<170> FastSEQ for Windows Version 4.0

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<212> DNA

<213> Arabidopsis thaliana

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<221> CDS

<222> (1)...(1137)

<223> cDNA of LOV1 gene

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gtc aac aat aac gaa aaa ggt ata gaa gac aat gat cat aga ggc ggc	96
Val Asn Asn Asn Glu Lys Gly Ile Glu Asp Asn Asp His Arg Gly Gly	
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caa gag agt cat gtc caa aat gaa gat gaa gct gat gat cat gat cat	144
Gln Glu Ser His Val Gln Asn Glu Asp Glu Ala Asp Asp His Asp His	
35 40 45	

gac atg gtc atg ccc gga ttt aga ttc cat cct acc gaa gaa gaa ctc	192
Asp Met Val Met Pro Gly Phe Arg Phe His Pro Thr Glu Glu Glu Leu	
50 55 60	

ata gag ttt tac ctt cgc cga aaa gtt gaa ggc aaa cgc ttt aat gta	240
Ile Glu Phe Tyr Leu Arg Arg Lys Val Glu Gly Lys Arg Phe Asn Val	
65 70 75 80	

gaa ctc atc act ttc ctc gat ctt tat cgc tat gat cct tgg gaa ctt	288
Glu Leu Ile Thr Phe Leu Asp Leu Tyr Arg Tyr Asp Pro Trp Glu Leu	
85 90 95	

cct gct atg gcg gcg ata gga gag aaa gag tgg tac ttc tat gtg cca 336
 Pro Ala Met Ala Ala Ile Gly Glu Lys Glu Trp Tyr Phe Tyr Val Pro
 100 105 110

aga gat cgg aaa tat aga aat gga gat aga ccg aac cga gta acg act 384
 Arg Asp Arg Lys Tyr Arg Asn Gly Asp Arg Pro Asn Arg Val Thr Thr
 115 120 125

tca gga tat tgg aaa gcc acc gga gct gat agg atg atc aga tcg gag 432
 Ser Gly Tyr Trp Lys Ala Thr Gly Ala Asp Arg Met Ile Arg Ser Glu
 130 135 140

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 Thr Ser Arg Pro Ile Gly Leu Lys Lys Thr Leu Val Phe Tyr Ser Gly
 145 150 155 160

aaa gcc cct aaa ggc act cgt act agt tgg atc atg aac gag tat cgt 528
 Lys Ala Pro Lys Gly Thr Arg Thr Ser Trp Ile Met Asn Glu Tyr Arg
 165 170 175

ctt ccg cac cat gaa acc gag aag tac caa aag gct gaa ata tca ttg 576
 Leu Pro His His Glu Thr Glu Lys Tyr Gln Lys Ala Glu Ile Ser Leu
 180 185 190

tgc cga gtg tac aaa agg cca gga gta gaa gat cat cca tcg gta cca 624
 Cys Arg Val Tyr Lys Arg Pro Gly Val Glu Asp His Pro Ser Val Pro
 195 200 205

cgt tct ctc tcc aca aga cat cat aac cat aac tca tcg aca tca tcc 672
 Arg Ser Leu Ser Thr Arg His His Asn His Asn Ser Ser Thr Ser Ser
 210 215 220

cgt tta gcc tta aga caa caa caa cac cat tca tcc tcc tct aat cat 720
 Arg Leu Ala Leu Arg Gln Gln Gln His His Ser Ser Ser Ser Asn His
 225 230 235 240

tcc gac aac aac ctt aac aac aac aac aac atc aac aat ctc gag aag 768
 Ser Asp Asn Asn Leu Asn Asn Asn Asn Asn Ile Asn Asn Leu Glu Lys
 245 250 255

ctc tcc acc gaa tat tcc ggc gac ggc agc aca aca aca acg acc aca 816
 Leu Ser Thr Glu Tyr Ser Gly Asp Gly Ser Thr Thr Thr Thr Thr Thr
 260 265 270

aac agt aac tct gac gtt acc att gct cta gcc aat caa aac ata tat 864
 Asn Ser Asn Ser Asp Val Thr Ile Ala Leu Ala Asn Gln Asn Ile Tyr
 275 280 285

cgt cca atg cct tac gac aca agc aac aac aca ttg ata gtc tct acg 912
 Arg Pro Met Pro Tyr Asp Thr Ser Asn Asn Thr Leu Ile Val Ser Thr
 290 295 300

aga aat cat caa gac gat gat gaa act gcc att gtt gac gat ctt caa 960
 Arg Asn His Gln Asp Asp Asp Glu Thr Ala Ile Val Asp Asp Leu Gln
 305 310 315 320

aga cta gtt aac tac caa ata tca gat gga gcg aca acg cta atg cct 1008
 Arg Leu Val Asn Tyr Gln Ile Ser Asp Gly Ala Thr Thr Leu Met Pro

325	330	335	
caa act caa gcg gcg tta gct atg aac atg att cct gca gga acg att			1056
Gln Thr Gln Ala Ala Leu Ala Met Asn Met Ile Pro Ala Gly Thr Ile			
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cca aac aat gct ttg tgg gat atg tgg aat cca ata gta cca gat gga			1104
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<213> Arabidopsis thaliana

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Glu Leu Ile Thr Phe Leu Asp Leu Tyr Arg Tyr Asp Pro Trp Glu Leu			
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100	105	110	
Arg Asp Arg Lys Tyr Arg Asn Gly Asp Arg Pro Asn Arg Val Thr Thr			
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Ser Gly Tyr Trp Lys Ala Thr Gly Ala Asp Arg Met Ile Arg Ser Glu			
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Thr Ser Arg Pro Ile Gly Leu Lys Lys Thr Leu Val Phe Tyr Ser Gly			
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Lys Ala Pro Lys Gly Thr Arg Thr Ser Trp Ile Met Asn Glu Tyr Arg			
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Leu Pro His His Glu Thr Glu Lys Tyr Gln Lys Ala Glu Ile Ser Leu			
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Cys Arg Val Tyr Lys Arg Pro Gly Val Glu Asp His Pro Ser Val Pro			
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Arg Leu Ala Leu Arg Gln Gln His His Ser Ser Ser Ser Asn His			
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Ser Asp Asn Asn Leu Asn Asn Asn Asn Asn Ile Asn Asn Leu Glu Lys			
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Leu Ser Thr Glu Tyr Ser Gly Asp Gly Ser Thr Thr Thr Thr Thr			
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<223> Sense primer of FLC

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